

## 3-Beam 4x4 Multibeam Panel Antenna [1695-2690 MHz]

# GP5112-07799

### Description:

- 4x4 MIMO 3-Beam antenna for high-capacity stadium/venue or special events applications
- 3-Beam (12-port) 1695-2690 MHz; each beam with 4x4 MIMO capability
- 6° Fixed Electrical Downtilt in all bands
- Patent pending technology allows for stable azimuth beam directions over the entire operating frequency band
- Excellent alternative to large lens-based multibeam antennas
- Optional heavy-duty transport case is provided to prevent damage for multiple deployment scenarios



4x4 MIMO 1695-2690 MHz 3-Beam Panel Antenna

### Electrical Specifications

Frequency Band [MHz]	1695-1910	1930-2020	2110-2200	2305-2360	2496-2690
Gain, max. (dBi)	17.4	17.9	18.3	19.0	19.5
Gain, avg. (dBi)	16.3	16.6	17.3	17.3	18.4
Azimuth Beamwidth (°)	26	25	23	22	21
Azimuth Beamwidth, 10dB (°)	46	45	42	39	37
Azimuth Beam Spacing (°)	33				
Horizontal Coverage (°)	120				
Azimuth Beam Crossover (dB)	6.1	6.7	7.5	8.0	9.2
Elevation Beamwidth (°)	16.0	15.0	12.9	12.2	11.2
Elevation Beamwidth, 10dB (°)	28	26	22	21	19
Electrical Downtilt (°)	6 FET (per each 4x4 beam cluster)				
First Upper Sidelobe Suppression (dB)	22	20	20	19	23
Front-to-Back Ratio, 180° (dB)	45				
Cross-Pol Discrimination @ Boresight (dB)	20				
VSWR / RL (dB)	1.5:1 / 14				
Port-to-Port Isolation, Intrabeam (dB)*	25				
Port-to-Port Isolation, Interbeam (dB)**	15	16	19	20	18
PIM @ 2x43 dBm (dBc)	-153				
Max Power per Port (Watt)	100				
Polarization (°)	Dual slant 45 (±45)				
Impedance (Ω)	50				

\* Port-port isolation between each cluster of four ports in the same 4x4 MIMO beam

\*\* Port-port isolation between any combination of ports between different beams

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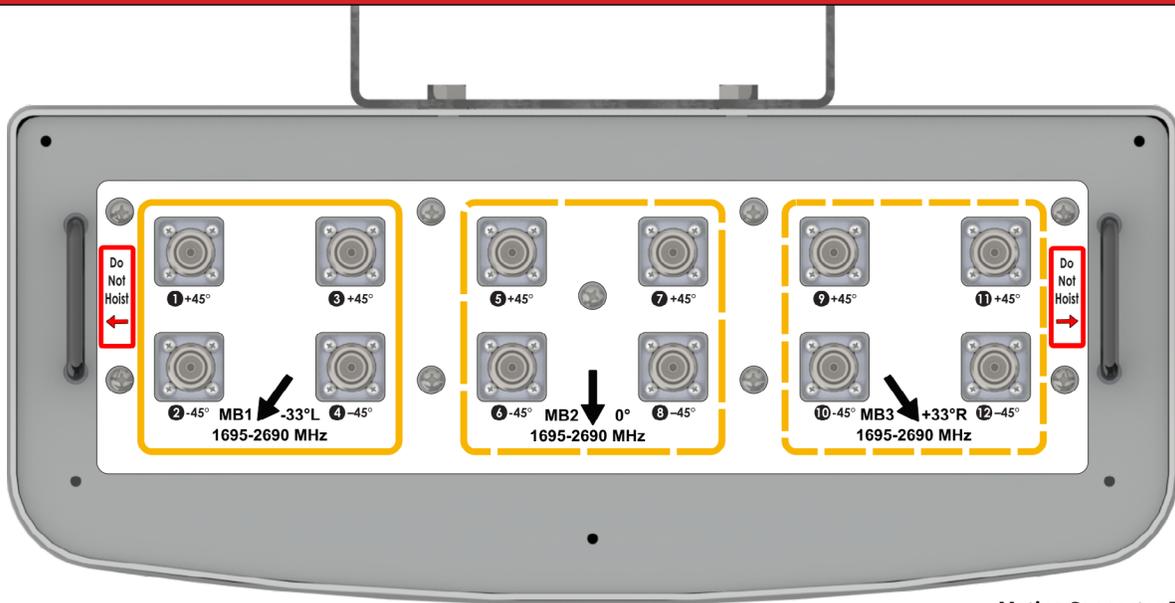
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## Electrical Specifications - BASTA

Frequency Band [MHz]	1695-1910	1930-2020	2110-2200	2305-2360	2496-2690
Gain Over All Tilts, avg. (dBi)	16.3	16.6	17.3	17.3	18.4
Gain Over All Tilts Tolerance (dB)	0.9	1.0	0.9	1.5	1.1
AZ Beamwidth Tolerance (°)	2.4	2.9	2.7	3.4	3.2
EL Beamwidth Tolerance (°)	1.0	0.9	0.6	1.1	0.7
Upper Sidelobe Suppression, Peak to +20° (dB)	19.5	17.1	17.1	14.5	19.7
Front-to-Back Ratio, Total Power, +/-30° (dB)	27.6	33.2	34.6	30.4	30.9
Cross-Polar Discrimination at Boresight (dB)	17.1	20.5	21.6	14.9	19.5
Azimuth Beam Peak Tolerance (°)	1.0	1.1	1.0	1.5	1.2
Azimuth Beam Crossover Tolerance (dB)	0.8	1.0	1.2	1.8	1.8

## Bottom Plate & Port Designation Details



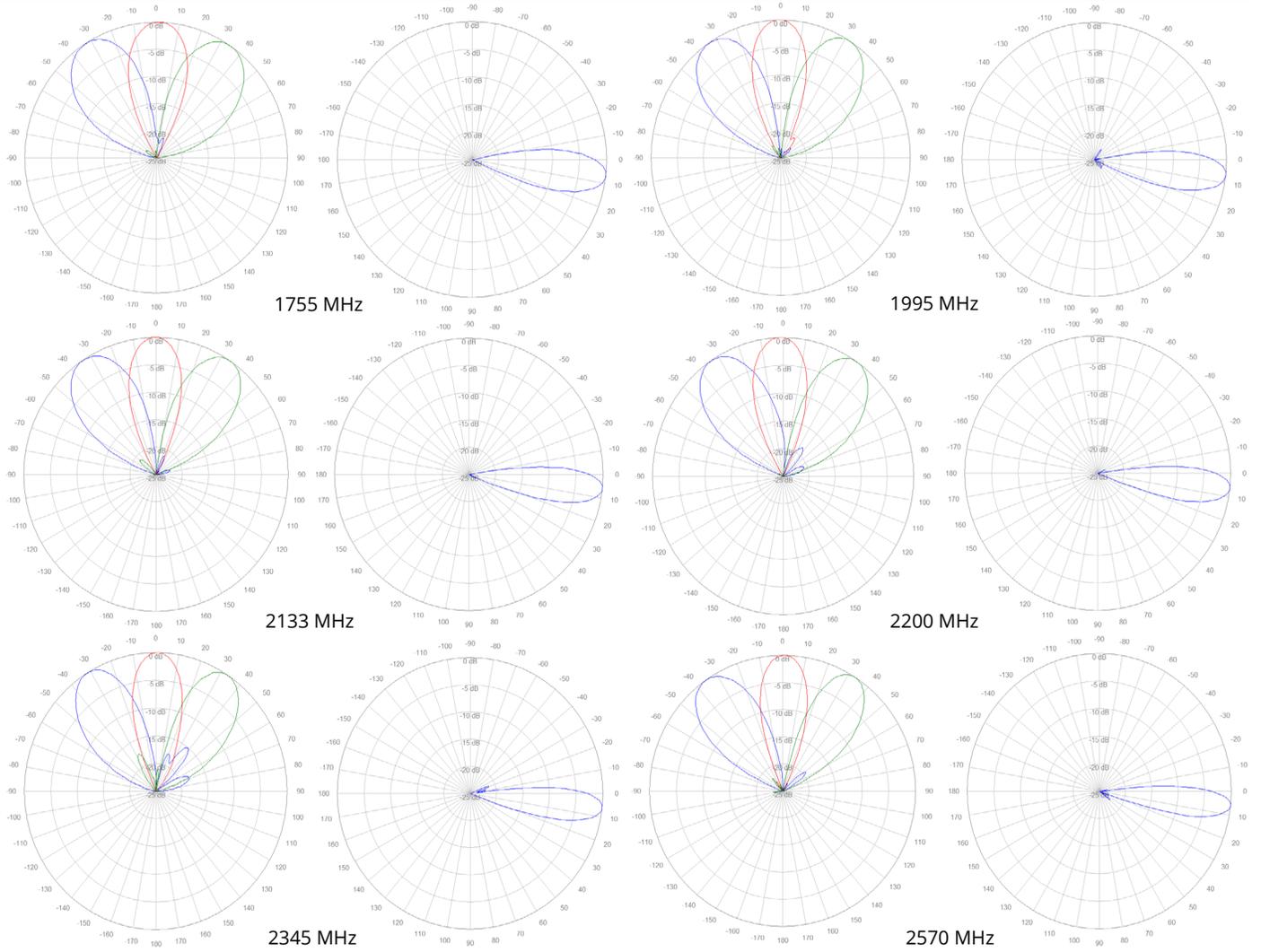
**Mating Connector Torque:**  
4.3-10 44.3 in-lb (5 Nm)

## Port/Beam Designator Table

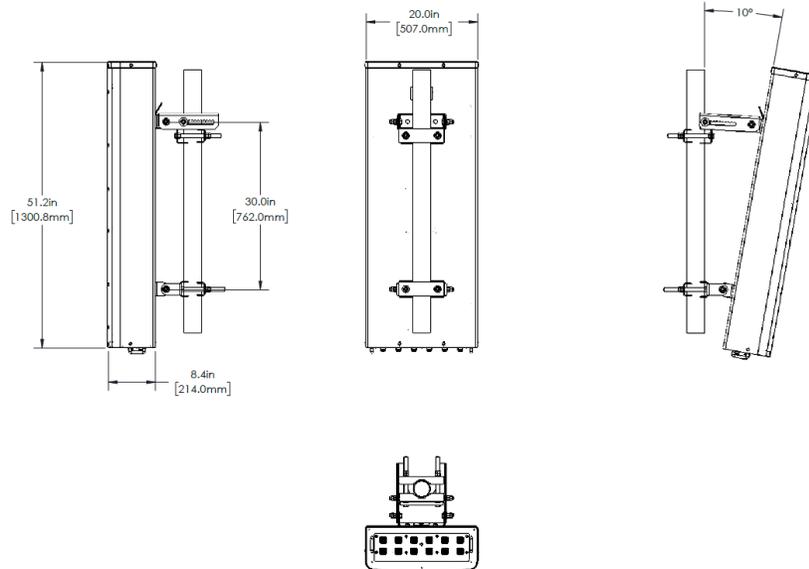
Frequency Range	Ports	Beam Assignment	AZ Beam Direction	Downtilt
1695-2690 MHz	1 - 4	MB1	-33° L	6° Fixed
1695-2690 MHz	5 - 8	MB2	0°	6° Fixed
1695-2690 MHz	9 - 12	MB3	+33° R	6° Fixed

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## 2D Antenna Patterns



## Antenna Outline



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## Mechanical Specifications

Operating Temperature	-40° to 158°F (-40° to +70°C)
Antenna Weight	48.7 lbs (22.1kg)
Antenna Bracket Weight	13.4 lbs (6.1 kg)
Antenna Dimension (Height x Width x Depth)	51.2" (1300.8 mm) x 20.0" (507.0 mm) x 8.4" (214.0 mm)
Input Connector Type	12x 4.3/10 (F)
Radome Material	ASA
Radome Color	Gray
Wind Load, Front (@ 150 km/h)*	688 N / 155 lbf
Wind Load, Side (@ 150 km/h)*	380 N / 86 lbf
Wind Load, Maximum (@ 150 km/h)*	914 N / 205 lbf
Wind Survival Rating	150 mph (241 km/h)

\* Wind load based on calculations according to TIA-222-H

## Part Numbers & Ordering Options

Description	Color	Mounting Kit	Part Number
4x4 MIMO 1695-2690 MHz 3-Beam Antenna with 12x 4.3-10 (F) Connectors	Gray	Includes MK-06989 mounting kit assemblies	GP5112-07799-112
4x4 MIMO 1695-2690 MHz 3-Beam Antenna with 12x 4.3-10 (F) Connectors and Heavy Duty Transport Case	Gray	Includes MK-06989 mounting kit assemblies	GP5112-07799-212

## Mounting Brackets & Optional Accessories

Description:	Part Number:
<p><b>Heavy Duty Mounting Bracket (wind speed of 150 mph) [Included]</b></p> <p>The MK-6989 standard mounting bracket allows for easy installation of any Galtronics Base Station Antenna to a macro tower structure. It provides 0°-10° of mechanical downtilt adjustability, and fits pole diameters ranging from 3" to 5".</p> <p><b>Note:</b> The MK-06989 mounting bracket can also be ordered separately.</p>	 <p>MK-06989</p>

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